

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims:

Claim 1 (Currently amended) A polypeptide having at least ~~80%~~ 90% sequence identity to SEQ ID NO: 1, wherein the polypeptide has a substitution at one or more of amino acids corresponding to Glu-109, Glu-111 or Glu-120 of SEQ ID NO: 1.

Claim 2 (Currently amended) The polypeptide of claim 1, wherein the polypeptide has reduced or eliminated ADP ribosyltransferase ~~and/or~~ NAD-glycohydrolase activity relative to the wild-type enzyme, wherein the wild-type enzyme has amino acid sequence SEQ ID NO: 1.

Claim 3 (Previously presented) The polypeptide of claim 1 or claim 2, wherein the substitution is Glu to Asp.

Claim 4 (Previously presented) The polypeptide of claim 1, wherein the polypeptide comprises one of the amino acid sequences SEQ ID NO: 2, SEQ ID NO: 3 or SEQ ID NO: 4.

Claim 5 (Currently amended) A polypeptide comprising a fragment of a polypeptide having at least ~~80%~~ 90% sequence identity to SEQ ID NO: 1, wherein (i) the fragment includes one or more of amino acids corresponding to Glu-109, Glu-111 or Glu-120 from said polypeptide, and (ii) one or more of said amino acids corresponding to Glu-109, Glu-111 or Glu-120 is substituted.

Claim 6 (Previously presented) The polypeptide of claim 5, wherein the amino acid corresponding to Glu-109, Glu-111 or Glu-120 is substituted with Asp.

Claim 7 (Previously presented) The polypeptide of claim 6 or claim 7, wherein the fragment comprises at least 7 consecutive amino acids from the polypeptide.

Claim 8 (Canceled).

Claim 9 (Previously presented) The polypeptide of claim 6 in admixture with a second antigen.

Claim 10 (Canceled).

Claim 11 (Previously presented) An immunogenic composition comprising the polypeptide of claim 1 in admixture with a second antigen.

Claims 12-13 (Canceled).

Claim 14 (Withdrawn) A method of treating a patient, comprising administering a therapeutically effective amount of the polypeptide of claims 1, 2, 4, 5, or 6.

Claim 15 (Canceled).

Claim 16 (New) The polypeptide of claim 1, wherein the polypeptide has at least 95% sequence identity to SEQ ID NO: 1.

Claim 17 (New) The polypeptide of claim 1, wherein the polypeptide has at least 99% sequence identity to SEQ ID NO: 1.

Claim 18 (New) The polypeptide of claim 5, wherein the polypeptide has at least 95% sequence identity to SEQ ID NO: 1.

Claim 19 (New) The polypeptide of claim 5, wherein the polypeptide has at least 99% sequence identity to SEQ ID NO: 1.